

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1. (Currently Amended) A television system for automatically controlling a display of broadcast information comprising: including

a virtual channel table for a broadcast protocol, said virtual channel table including
~~comprising~~ identification information in a bit stream syntax thereof, said identification information identifying each individual channel as being one of an active and an inactive channel;

wherein said inactive channel is a channel that is not presently carrying a broadcast program; however, the same inactive channel is scheduled to carry a broadcast program at a predetermined later time from a broadcasting station without local viewer interaction; and

wherein the inactive channel is capable of being automatically skipped.

Claim 2. (Previously Presented) The system of claim 1, wherein said virtual channel table is included in a program and system information protocol for a digital broadcast.

Claim 3. (Previously Presented) The system of claim 2, wherein said digital broadcast is any one of a digital terrestrial broadcast and a digital cable broadcast.

Claim 4. (Previously Presented) The system of claim 1, wherein said identification information sets a value of a program number field in the virtual channel table to “0” to indicate that a corresponding channel is an inactive channel.

Claim 5. (Previously Presented) The system of claim 1, wherein said identification information sets a value of a number of elements field of a service location descriptor in the virtual channel table to “0” to indicate that a corresponding channel is an inactive channel.

Claim 6. (Previously Presented) The system of claim 1, wherein said identification information indicates that a corresponding channel is an inactive channel whenever a service location descriptor is not included in the virtual channel table.

Claim 7. (Previously Presented) The system of claim 1, wherein said identification information assigns at least one bit of a reserved field to indicate that a corresponding channel is an inactive channel.

Claim 8. (Previously Presented) The system of claim 7, wherein said reserved field is positioned in a statement of a for loop in a bit stream syntax of the virtual channel table.

Claim 9. (Currently Amended) A method of broadcasting using a virtual channel table in a broadcasting protocol, said method comprising:

including identification information in the virtual channel table, said identification information identifying a channel as being one of an active and an inactive channel, and transmitting the virtual channel table; and

determining at a receiver whether the channel is inactive based upon the identification information defined in the virtual channel table, by parsing the virtual channel table;

wherein said inactive channel is a channel that is not presently carrying a broadcast program; however, the same inactive channel is scheduled to carry a broadcast program at a predetermined later time from a broadcasting station without local viewer interaction; and

wherein the inactive channel is capable of being automatically skipped.

Claim 10. (Original) The method of claim 9, wherein including identification information further comprises, when a channel is inactive, setting a value of a program number field in the virtual channel table to “0” and inhibiting a service location descriptor from being transmitted through the virtual channel table.

Claim 11. (Original) The method of claim 9, wherein including identification information further comprises setting a value of the program number field and a value of a reserved field assigned for recognizing an inactive channel in the parsed virtual channel table to “0.”

Claim 12. (Original) The method of claim 9, wherein determining at the receiver whether the channel is inactive comprises determining that the channel is inactive when a corresponding service location descriptor is not received in the virtual channel table.

Claim 13. (Original) The method of claim 9, wherein determining at the receiver whether the channel is inactive comprises determining that the channel is inactive when a value of a reserved field assigned for recognizing an inactive channel in the parsed virtual channel table is "0."

Claim 14. (Original) The method of claim 9, wherein determining at the receiver whether the channel is inactive comprises determining that the channel is inactive when a value of a program number field in the virtual channel table is "0."

Claims 15 - 18 (Canceled)

Claim 19. (Currently Amended) In a digital broadcast transmitter, a method of indicating an inactive channel, comprising:

generating a virtual channel table, including within the virtual channel table information indicating the inactive channel; and

transmitting the virtual channel table as part of a digital broadcast signal;

wherein said inactive channel is a channel that is not presently carrying a broadcast program; however, the same inactive channel is scheduled to carry a broadcast program at a predetermined later time from a broadcasting station without local viewer interaction; and wherein the inactive channel is capable of being automatically skipped.

Claim 20. (Original) The method of claim 19, wherein including within the virtual channel table information indicating the inactive channel comprises setting a value of a program number field in the virtual channel table to indicate the inactive channel.

Claim 21. (Original) The method of claim 19, wherein including within the virtual channel table information indicating the inactive channel comprises assigning at least one bit of a reserved field to indicate the inactive channel.

Claim 22. (Original) The method of claim 19, wherein including within the virtual channel table information indicating the inactive channel comprises omitting a service location descriptor.

Claims 23 -34. (Canceled)

Claim 35. (New) A method of broadcasting using a virtual channel table in a broadcasting protocol, said method comprising:

receiving a virtual channel table including identification information, said identification information identifying a channel as being one of an active and an inactive channel; and

determining at a receiver whether the channel is inactive based upon the identification information defined in the virtual channel table, by parsing the virtual channel table;

wherein said inactive channel is a channel that is not presently carrying a broadcast program; however, the same inactive channel is scheduled to carry a broadcast program at a predetermined later time from a broadcasting station without local viewer interaction; and

wherein the inactive channel is capable of being automatically skipped.

Claim 36. (New) The method of claim 35, wherein said identification information identifying a channel further comprises, when a channel is inactive, setting a value of a program number field in the virtual channel table to “0” and inhibiting a service location descriptor from being transmitted through the virtual channel table.

Claim 37. (New) The method of claim 35, wherein said identification information identifying a channel further comprises setting a value of the program number field and a value of a reserved field assigned for recognizing an inactive channel in the parsed virtual channel table to “0.”

Claim 38. (New) The method of claim 35, wherein determining at the receiver whether the channel is inactive comprises determining that the channel is inactive when a corresponding service location descriptor is not received in the virtual channel table.

Claim 39. (New) The method of claim 35, wherein determining at the receiver whether the channel is inactive comprises determining that the channel is inactive when a value of a reserved field assigned for recognizing an inactive channel in the parsed virtual channel table is “0.”

Claim 40. (New) The method of claim 35, wherein determining at the receiver whether the channel is inactive comprises determining that the channel is inactive when a value of a program number field in the virtual channel table is "0."